DOCUMENT RESUME

ED 385 447 SE 056 785

AUTHOR Gough, Annette Greenall
TITLE Recognising Women in Environmental Education Pedagogy and Research: Toward An Ecofeminist Poststructuralist Perspective.
PUB DATE Apr 95
NOTE 16p.; Paper presented at the Annual Meeting of the American Educational Research Association (San Francisco, CA, April 18-22, 1995).
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Educational Change; Educational Research; *Educational Theories; *Environmental Education; *Females; Feminism; Foreign Countries; *Instruction
IDENTIFIERS United Nations

ABSTRACT

This paper argues that in the past, women have been overlooked in most environmental education programs through being subsumed into the notion of "universalized people." Alternately, it is suggested that women have distinctive contributions to make to environmental education pedagogy and research which needs to be foregrounded. The paper is organized into three parts. Part I presents the findings of research into the gender and language bases of UNESCO discourses on environmental education. Part II discusses activities attempted to date to recognize women in environmental education pedagogy and research. Part III presents some pedagogical and research principles intended both to destabilize current approaches and to provide a worthwhile and effective strategy for reconstituting environmental education as a more democratic human science. Contains 68 references. (LZ)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 385 447

Recognising women in environmental education pedagogy and research: toward an ecofeminist poststructuralist perspective

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Annette Gough

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Annette Greenall Gough
Faculty of Education
Deakin University
Geelong, Victoria
Australia 3217

Paper presented at the American Educational Research Association Annual Meeting, San Francisco, USA, 18-22 April 1995

SP025785

BEST COPY AVAILABLE

Recognising women in environmental education pedagogy and research: toward an ecofeminist poststructuralist perspective

Annette Greenall Gough
Faculty of Education
Deakin University
Geelong, Victoria
Australia 3217

Introduction

In this paper I argue how, in the past, women have been overlooked in most environmental education programs through being subsumed into the notion of "universalized people", but that women have a distinctive contribution to make to environmental education pedagogy and research which needs to be foregrounded.

Women were noticeably in the minority at the international gatherings which formalized conceptions of environmental education. I argue that this absence of women is related to the epistemological framework of environmental education being very much that of a man-made subject and to the content of the corresponding curriculum and research programs tending to be determined by male agenda. However, through recent environmental education statements, such as those emanating from the 1992 United Nations Conference on Environment and Development, through the development of feminist poststructuralist educational research strategies and other feminist critiques of science and society a significant place can be argued for a women's perspective in both pedagogy and research in environmental education.

This paper is organized in three parts. Firstly, I present the findings of my research into the gender and language bases of UNESCO discourses on environmental education. Secondly, I discuss activities attempted to date to recognize women in environmental education pedagogy and research. Thirdly, I argue that women have a distinctive contribution to make to environmental education pedagogy and research and I present some pedagogical and research principles which, I believe, will both destabilize current approaches and provide a worthwhile and effective strategy for reconstituting environmental education as a more democratic human science.

Documenting the absence of women and other marginalized groups in environmental education discourses

Environmental education has been around now for twenty five years, more or less. During this time the field has undergone many changes. It has also been associated with many other forms of education - such as science, social and outdoor - and it incorporates many elements of these. Its global history within UNESCO can be precisely charted because of the activities of the UNESCO-UNEP International Environmental Education Program (IEEP). This program had its origins in the recommendations from the 1972 United Nations Conference on the Human Environment held in Stockholm, Sweden. The outcomes of the various activities conducted through the IEEP can be read as attempts to universalize (make one for all) statements about environmental education. By making universal statements the IEEP could be seen as saying that there is only one problem and one solution, thereby masking any differences that may exist. However this universalization also can be read as an effect of colonization of others by the English speaking world, and of marginalization of non-English speaking views. Colonization has a new meaning in this context. Here it is applied in the realm of ideas, texts, language and discourse rather than just in terms of geography. It is this possible reading of the ideas and language of the IEEP statements on environmental education that is explored in this paper.

I have been working in the field for two decades now, but I only recently started to look at the language of some of the statements and publications of UNESCO in the area of environmental education. This focus arose from my academic research interests in developing a critical perspective on the relationships between gender, science and

environmental education. However, it has led me to looking at issues of marginalization of people and perspectives that are not Western, not English-speaking, and not male, in environmental education statements. IEEP and other UNESCO statements have been used as the foundations of national and school level policies and programs in environmental education in many places. Thus the gendered worldview implicit in these statements should be critically examined as a starting point for a discussion on how to destabilize these statements so that women are more recognised in environmental education pedagogy and research.

UNESCO Publications

A Western, Amero-Eurocentric, English-speaking, and developed worldview[1] has dominated the statements and discourses of environmental education for much, if not all, of the past two decades for a number of reasons.

Table 1: Gender ratios of participants at the UNESCO-UNEP Intergovernmental Conference on Environmental Education held at Tbilisi, USSR, October 1977[2]

Number of participants who were:

Category of Participant	Male	Female	Unknown (unable to be determined from information provided)
Member States (delegate, adviser, expert)	233	43	3
Non-Member States	4	0	0
UN Organisations	15	1	0
Intergovernmental Organisations	4	0	0
International Non-Government Organisations	31	11	0
TOTAL	287	55	3

Most of the trend papers presented at the 1975 UNESCO Belgrade workshop were biased towards the developed world. The papers prepared as working documents for the Belgrade workshop were published by UNESCO (1977). This volume contains 16 papers, of which 15.5 were written by males (the Introduction was co-authored by a female). Of the 20 authors, 8 are from North America, 5 are from Europe, 4 represent UN agencies, 2 come

1 This dominant worldview originated in the scientific revolution of the seventeenth century ("the Age of Enlightenment") and is secular, empirical and mechanistic, and characterized by seeing the human species as apart from nature (and thus nature has no intrinsic value). Material progress is an essential part of this worldview, as is belief in technological innovation and a capitalist market-led economy. "In essence, the dominant worldview has become so ingrained in our way of thinking, particularly in Western society, that it acts hegemonically to maintain itself as the dominant ideology" (Robottom and Hart 1993: 29). Within environmental education, and education in general, this has led to a view of inquiry as analytic, reductionist and based on scientific neutrality, rationality, divisibility of knowledge and emphasis on quantitative measurement and observable phenomena (see, for example, Hart 1990).

2 From the Final Report of the Tbilisi Conference (UNESCO 1978: 83-99). The table omits the Conference Secretariat who officially took no part in the endorsing of the recommendations. The Secretariat included the Director-General of UNESCO and other UNESCO staff (26 males, 10 females (of whom only 1 was designated a section chief, 2 were in press and conference services, 7 were described as secretaries)), plus the interpretation, translation and typing services (27 males, 30 females).

BEST COPY AVAILABLE

from Africa and 1 is from South America. As one of the participants reported (Fensham 1976: 4),

> Because of the overwhelming preponderance in published form of information about Environmental Education in countries like those of Europe and North America this bias was not surprising but it did tend to give the impression that the models for developing Environmental Education must also be those for the developed world.

The situation was little different at the 1977 UNESCO-UNEP Intergovernmental Conference on Environmental Education, held in Tbilisi, USSR. Here there were only 55 females out of a total of 340 participants, a ratio of over 6:1 (see Table 1).

It is not only the paucity of representation of women in the groups that formulated the foundational statements on environmental education that is significant. It also is likely that the women who were present were from scientific backgrounds and, thus, for example, were unlikely to see anything wrong with the use of the generic 'man' in the statements.

UNESCO has continued to perpetuate this view through continuing to publish a Western perspective[3] in the volumes of the Environmental Education series of the UNESCO-UNEP International Environmental Education Program, even though, to adapt Fensham's words, these perspectives are largely irrelevant to most of UNESCO's countries. At the present time there are thirty volumes in the series, of which twenty nine are available[4]. These have been published between 1983 and 1992 and prepared by authors whose national affiliations are shown in Table 2.

Table 2: Authorship of UNESCO-UNEP Environmental Education series volumes

Country/Continent of author	No. of volumes authored	Comment
Africa	1	edited in USA
Australia	1	edited in USA
Europe	9	none edited in USA
India	3	all edited in USA
Jamaica	1	edited in USA
Philippines	1	edited in USA
United States of America	10	not separately edited
UNESCO	3	all written in Europe, not edited in USA
Unknown (because of unavailability)	1	

The gender of the authors and editors of these volumes is also very telling (see Table 3). The lack of participation by women is apparent.

---

3 The domination of Western perspectives in the United Nations was highlighted in a letter to the editor of Time Australia following the attacks on the U.N. Secretary-General by demonstrators in Bosnia and Somalia. Choudhary (1993: 6) writes that the actions were not personal attacks, rather "(t)heir actions show contempt for the U.N. This so-called world leader is perceived by the Third World as a tool of the organization created and operated by the Western powers to advance and protect their own economic and political interests".

4 Interestingly, in terms of the possible politics involved, Volume 19, *Analysis of Results of Environmental Education Pilot Projects*, seems never to have been released.

Table 3: Gender of authors and editors of UNESCO-UNEP Environmental Education series volumes

	Male author	Male editor	Female author	Female editor	Unstated (UNESCO or other institution as author)	Unknown*
No of volumes (total of 30 published)	44	8	13	3	5	4

* Either because gender was unable to be determined from name, e.g. "Pansy" or because volumes were unavailable.

The language in which the text is written is important. Western domination can be found in the languages used in the UNESCO-UNEP series, as Table 4 illustrates. The dominance of the use of English is perhaps explicable in terms of it being the universal language for United Nations documents, however UNESCO is supposed to be a multilingual organization. The use of English nevertheless conveys particular messages and limits access to the volumes to those who are very proficient in English (which may, of course, be seen as a blessing in disguise). Gayatri Spivak (1987) argues that colonised races and peoples have been forced to articulate their experiences in the language of their oppressors. Ngugi Wa Thiong'O (1986: 4) further develops this point: "The choice of language and the use to which it is put is central to a people's definition of themselves in relation to their natural and social environment, indeed in relation to the entire universe".

Table 4: Languages of UNESCO-UNEP Environmental Education series volumes

Language used in volume	No. of volumes in that language*
Arabic	12
English	28†
French	14 or 15•
Spanish	3 or 13#

* Of the 30 volumes, all except two have been published in English with some also being published in other language(s)

† Of these volumes, Volume 19 is claimed to be available in English, but it has never been sighted and it is listed as 'unavailable' in the UNESCO-UNEP newsletter, *Connect* (XIV(3): 6-8), and in recent correspondence.

• Volume 29 states that 15 volumes are in French, whereas Volume 30 states that 14 volumes are in French, as does Volume 21 which was published in 1992 (Volume 25 is the uncertain one).

UNESCO itself seems uncertain about the number of volumes published in Spanish. The listing of documents in the IEEP series given at the beginning of Number 29 only notes 3 Spanish volumes (all published in 1983), *Connect* (XIV(3): 6-8), lists 13 volumes published in Spanish. Both listings were published in 1989. The volumes published in 1990 and 1992 list 13 volumes as being available in Spanish.

Much work has already been undertaken on "man made language". For example, Spender (1990: 3) argues that women, "having learnt the language of a patriarchal society we have also learnt to classify and manage the world in accordance with patriarchal order and to preclude many possibilities for alternative ways of making sense of the world". That these documents have been written by males with a particular worldview means that alternative worldviews, such as those of women, are precluded.

Of particular concern in this paper is the universalized nature of the statements made in these volumes given the diversity of cultures, environments, languages, religions, stages of 'development', and politics within the world, as well as differing stages of colonization and

post-colonization. How *can* universal statements, generally made by Western English-speaking males, meet the needs and interests of such a diversity? And what can be done to recognize women's voices?

Authorship of IEEP volumes

UNESCO, of course, makes the usual disclaimer about the opinions being those of the authors and not necessarily coinciding with any official views of UNESCO, but it seems more likely that the views do at least coincide with those who direct the UNESCO-UNEP International Environmental Education Programme given that the authors were commissioned by them to prepare the volumes. Also, the contents of the various volumes have then been promoted through lead articles in the IEEP newsletter, *Connect*. That there is a particular acceptable worldview from the UNESCO and IEEP is also reflected in the authors (and their countries) they selected compared with the ones that were overlooked. That such politics are played, and voices are silenced, is supported by the above quote from Fensham (1976: 4) which he elaborated in a more recent interview (as cited in Greenall Gough 1993: 15):

> because, even with the best will in the world, the liberals will find themselves confronted by groups who are much more radical than they are, and yet the liberals will always be in charge, because only liberals get put in charge of things.

The domination of the authorship of the IEEP volumes by Europeans and Americans is noticeable, especially when it is noted that all the volumes not written by Americans, Europeans or UNESCO have been subsequently edited by Americans. It could be contested that the editing of the volumes from outside Europe and the USA influenced the content of the texts. However, that such editing was carried out could nevertheless have resulted in the colonization[5] of the language of the texts by an American perspective. This certainly seems to be an intent in some of the volumes. For example, Hungerford, Volk and Ramsey (1989: i), who are Americans, universalize their work in terms of being

> an ideal around which a team of educational planners can make intelligent decisions about what their own curriculum should look like. Even though the curriculum outlined here may exceed the constraints placed upon a given school or nation, all of the major components should probably be represented in one way or another.

Another example comes from Marcinkowski, Volk and Hungerford (1990: 1) where it is claimed that

> When implemented as intended, these guidelines will, in fact, result in teachers who are sufficiently competent and skilled to offer instruction in environmental education that will clearly contribute to the development of environmentally literate students.

Such statements raise questions about what makes these particular protoypes for an environmental education curriculum appropriate for places other than where they have been developed and whether the major components and guidelines they have identified are also appropriate. In making their universal statements the prototypes do not take into account that there are different perspectives, goals, and strategies for change in other countries, and that these are grounded in the different social and political contexts of each of these countries (Sangari 1987). From a non-American perspective these types of materials are very much in the vein of what Wole Soyinka (in Slemon and Tiffin 1989: ix) calls "a second epoch of colonisation", or how "Western theoretical practice applies itself, even with the best intentions, to the cultural productions of the non-Western world":

> We... have been blandly invited to submit ourselves to a second epoch of colonisation - this time by a universal-humanoid abstraction defined and conducted by individuals whose

5 By colonization of the language I mean changing the original author's language (and values) to suit the American editor's intentions and meanings rather than allowing the author's voice to be heard.

> theories and prescriptions are derived from the apprehension of their worlds and their history, their social neuroses and their value systems.

Many authors are discussing "the material, often devastating, consequences of a centuries-long imposition of Euro-American conceptual patterns onto a world that is at once 'out there' and yet thoroughly assimilable to the psychic grasp of Western cognition" (Slemon and Tiffin, 1989: ix). Of particular relevance to environmental educators is the work by Vandana Shiva (1989) on women, ecology and development. She documents how the effects of the imposition of Western scientific knowledge and attitudes to economic development in India have destroyed life and threatened survival during the first epoch of colonization.

Just as important for environmental education is the work currently being undertaken on the "second epoch of colonization" which focuses on the realm of ideas, texts, language and discourse. This work builds on the recognition that knowledge is socially constructed and that language is a key participant in producing the reality people wish to present (Hawthorn in Spivak, 1990: 17):

> All that we can know is what we say about the world - our talk, our sentences, our discourse, our texts. There's nothing outside these texts, no extra texts. There's nothing prior to these texts, no pretexts, there are just more texts. Indeed this claim itself is just another text.

This statement encapsulates one of my major concerns with the texts of the IEEP. By promulgating a Western, Eurocentric, English speaking worldview through the authorship of these texts IEEP are supporting the imposition of the associated conceptual patterns, and corralling of social meanings, rather than allowing other voices to be heard. Once in print these views become legitimated and difficult to contest, particularly if they are published in a language other than that which is natural for the reader. As an environmental educator I am concerned that practitioners and policy makers then focus on the pedagogy of implementing these texts rather than looking at the language and the gendered worldview that imbue the IEEP texts. If we do this then our actions are limited by the existing discourses and their assumptions, such as nature having no intrinsic value but only a utilitarian value.

Interestingly, it is not only in the realm of environmental education that UNESCO seems to be silencing "Other" non-Western, non-male voices. Zia Sardar (1993) notes a similar phenomenon in the field of future studies where UNESCO has, with one exception, only sampled Western literature in the compilation of an authorative bibliography in its supposedly global reference tool, *UNESCO Future Scan*.

Putting women on the environmental education agenda

Since the earliest days of proclaiming an ecological crisis, environmentalists have been calling for environmental education as a means of resolving environmental problems as they variously see them. However, for the main part, feminists, and particularly ecofeminists, have not addressed environmental education as a strategy for achieving their goals. Thus the literature on feminist research in environmental education is both recent and sparse, and, interestingly, it is almost totally Australian. A similar finding was made by Giovanna Di Chiro (1993: 228) when she conducted an ERIC search using the descriptors 'feminism' and 'environmental education' which yielded only two articles, one her own (1987) which was written and published in Australia, and the other by, Ariel Salleh (1989), an Australian ecofeminist and social theorist. My own search adds two North American articles (Kremer, Mullins and Roth 1990-1991, Fawcett, Marino and Raglon 1991) and one British article (Hallam and Pepper 1991). The remaining literature which relates gender to environmental education is Australian (Brown and Broom 1992, Brown and Switzer 1991abc, Department of Prime Minister and Cabinet/Office of the Status of Women 1992, NWCC 1992, Peck 1991, 1992).

There are also statements from the United Nations Conference on Environment and Development (UNCED) where the activities for promoting education, public awareness and training include fostering opportunities for women and eliminating gender stereotyping in curricula (*Agenda 21*, UNCED 1992: see, for example Paragraphs 24.2(e) and 36.5 (m)).

However, lack of reciprocity is an issue between the 'Global Action for Women Towards Sustainable and Equitable Development' and the 'Promoting Education, Public Awareness and Training' chapters in *Agenda 21* (UNCED 1992: Chapters 24 and 36 respectively). The 'Women' chapter has as its overall goal, achieving active involvement of women in economic and political decision making, with emphasis on women's participation in national and international ecosystem management and control of environmental degradation. One of its objectives for national governments (UNCED 1992: Paragraph 24.2(e)) is "To assess, review, revise and implement, where appropriate, curricula and other educational material, with a view to promoting the dissemination to both men and women of gender-relevant knowledge and valuation of women's roles through formal and non-formal education". The activities for governments related to such objectives are broadly concerned with achieving equality of opportunity for women (such as through eliminating illiteracy): increasing proportions of women as decision makers in implementing policies and programmes for sustainable development; and recognising women as equal members of households both with respect to workloads and finance. Consumer awareness is particularly mentioned, as are "programmes to eliminate persistent negative images, stereotypes, attitudes and prejudices against women through changes in socialization patterns, the media, advertising, and formal and non-formal education" (UNCED 1992: Paragraph 24.3(i)). The perspective seems more akin to socialist and radical feminism rather than to ecofeminism or to the liberal feminism found in the Australian documents previously mentioned. Here, women's knowledge is being recognised and valued as something different rather than assuming that women will achieve equality simply through equal opportunity, although there are some elements of this liberal view present.

Unfortunately these views are not matched in the 'Education' chapter. Here women are generally included with all sectors of society, although specific mention is made of the high illiteracy levels among women which need to be addressed (UNCED 1992: Paragraph 36.4(a)) in the objectives. In the activities, women are mentioned in the following terms (UNCED 1992: Paragraph 36.5(m)): "Governments and educational authorities should foster opportunities for women in non-traditional fields and eliminate gender stereotyping in curricula". No mention is made of recognising and valuing women's knowledge, and the perspective seems once more to be that of liberal feminism, although the experience and understanding of sustainable development of indigenous peoples is affirmed as playing a part in education and training (UNCED 1992: Paragraph 36.5(n)).

The emphasis in many of the Australian documents on women, the environment and education can be generally characterized in terms of taking account of women's interests. For example, in their discussion paper on women and ecologically sustainable development, Brown and Switzer (1991a: 11) see education as "the primary avenue through which society transmits social values and behaviour patterns on environmental management to both the current and the future generation". They also note that "women are much less likely than men to have access to the scientific training which would assist in explicating environmental issues". They thus include "environmental education which includes women's interests" as one of five inter-related policy principles and strategies "needed to respond to the risks and responsibilities of Australian women with respect to the environment" (1991a: 14). They suggest that the goal of including women's interests in environmental education could be achieved through (1991a: 16):

- ensuring that there is overall emphasis in research and education on the impact of 'female' industries on the environment;
- including human and social development, the needs of human communities, and their interactions with the natural environment in curricula; and
- providing practical training in conflict management and the negotiated settlement of environmental disputes.

Brown and Switzer (1991a: 16) note that women are less likely to have scientific or economic training than men and, consequently, have less influence in developing curricula which give high priority to issues of importance to women, such as reduction of toxic wastes and information on safety standards. They also note that there is a need to compensate for the effects on research and teaching of the relative absence of women and women's interests from the professions of environmental science and economics: "this absence has meant that many questions on ecologically sustainable development from the fields of health, welfare,

household management and social policy have neither been investigated nor included in environmental education" (Brown & Switzer 1991a: 16).

While many forms of feminism and ecofeminism have much to contribute to discussions about the environment, I particularly argue for the relevance of feminist poststructuralism (or poststructuralist feminism) as an orientation for future research and pedagogy in environmental education. Feminist poststructuralism has reinforced the notion that there is no such subject as the universalized woman, and that there is no 'one true story' (Harding 1986) for environmental education. This paper thus concludes with a discussion of possible new directions in environmental education content and research which take into account subjectivity that acknowledges women as gendered, classed, raced and aged individuals, among other characteristics. These include some research principles which could guide such research and curriculum development in environmental education in the future. Such a perspective is sorely needed if women are to be recognised in environmental education pedagogy and research.

Toward a feminist poststructuralist perspective

Recognizing that there are links between language and power in the discourses of environmental education it would seem important to examine the multiplicity of meanings in these discourses and to provide less partial and distorted descriptions and explanations using language which stresses context and interaction and democratic models of order. A methodology for doing this arises out of feminist poststructuralist analysis which is "a mode of knowledge production which uses poststructuralist theories of language, subjectivity, social processes and institutions to understand existing power relations and to identify areas and strategies for change" (Weedon 1987: 40-41).

Cleo Cherryholmes (1988: 177) provides further explication: "Poststructural analysis points beyond structure, utility, and instrumentality. Our ability to shape and design the social world can be enhanced, I hope, if we outline, examine, analyze, interpret, criticize, and evaluate the texts and discourse-practices that surround us". While my original interest grew out of feminist poststructuralist analysis, and continues to be informed by its discourses, the following discussion is informed by the broader constructions (and deconstructions) of poststructuralist analysis *per se*.

Working from the frames suggested by Weedon (1987) for feminist poststructuralist analysis, and by Cherryholmes (1988) and Davies (1994) for poststructuralist analysis, to date I have drafted four guiding principles which I am exploring in my own work. These principles, which are still being developed and which are all grounded in an opposition "to the longing for 'one true story' that has been the psychic motor for Western science" (Harding 1986: 193), include:

- to recognise that knowledge is partial, multiple and contradictory
- to draw attention to the racism and gender blindness in environmental education
- to develop a willingness to listen to silenced voices and to provide opportunities for them to be heard
- to develop understandings of the stories of which we are a part and our abilities to deconstruct them.

Listening to the Voice of the Marginalized in Environmental Education

Only a few authors have questioned the colonial domination implicit in the environmental education discourses which have been published. As mentioned previously, Fensham (1976) is one who has drawn attention to the Other voices. Leopoldo Chiappo (1978), a Peruvian, and Daniel Vidart (1978), a Colombian, are other critics. However, other voices that should have been more vocal, such as the report on *Environmental Education in Asia and the Pacific* (UNESCO Regional Office for Education in Asia and the Pacific 1981), have been silent, choosing instead to adopt the master narrative or dominant discourse. Chiappo (1978: 456) questions whether the inhabitants of the needy South can "accept as valid the way of seeing and interpreting ecological facts adopted by the countries of the super-industrialized, wealthy North", asserts that it is "necessary to reveal the ideology that underlies the attitude of dominance", and then asks "What are the central issues of environmental education?". His answers differ greatly from the generally accepted ones. For him, the fundamental issues of environmental education are the awakening of critical awareness of the social and political

factors of the environmental problem and the development of a new ethic of liberation: "Failure to tackle these two issues may reduce environmental education to a purely pedagogical and informative exercise" (1978: 458). He also draws attention to the silences in the Tbilisi Declaration: "it is true only for what it says, not for what it does not say" (1978: 463). For example, by omitting the word 'economic' from its reference to "the new international order" (in Recommendation 3, UNESCO 1978: 27), Chiappo argues that "it has left out the essential, since the issue is essentially an economic one" (1978: 464)[6].

Chiappo (1978: 457) asserts that the perceptions of environmental problems which underlie the dominant conceptions of environmental education are not as the North (or what elsewhere in this article has been called West) portrays them: "The present crisis is not due to lack of resources, but to the unjust exploitation and distribution of resources. It is the result of wastage and profit-seeking. The industrial mentality is what must be challenged". Both Merchant (1980, 1992) and Shiva (1989) argues similarly, linking modern Western-style scientific knowledge and economic development with the death of nature. For example, Shiva (1989: xiv) argues:

> The Age of Enlightenment, and the theory of progress to which it gave rise, was centred on the sacredness of two categories: modern scientific knowledge and economic development. Somewhere along the way, the unbridled pursuit of progress, guided by science and development, began to destroy life without any assessment of how fast and how much of the diversity of life on this planet is disappearing. The act of living and of celebrating and conserving life in all its diversity - in people and in nature - seems to have been sacrificed to progress, and the sanctity of life been substituted by the sanctity of science and development.
>
> Throughout the world, a new questioning is growing, rooted in the experience of those for whom the spread of what was called 'enlightenment' has been the spread of darkness, of extinction of life and life-enhancing processes. A new awareness is growing that is questioning the sanctity of science and development and revealing that these are not universal categories of progress, but the special projects of modern western patriarchy.

From my own experiences and readings, the industrial development mentality still dominates much environmental education, and many of the environmental problems are framed in terms of a reductionist 'us' against 'them' discourse where, for example, the cause of environmental deterioration and the exhaustion of the planet is attributed to population growth in the Third World.

However there is also an increasing questioning of both the effects of science and technology and of the worldview implicit in the knowledge that frames both science and economic development. This critique is forthcoming from a number of sources, but particularly from Asian as well as Western scientists, feminists and postmodernists. Haraway (1989), for example, documents how national interests are reflected in the research orientations of primatologists: whereas American and European primatologists are obsessed with studying sex and war among primate groups, Japanese primatologists focus on the construction of a specifically Japanese scientific cultural identity where "the Japanese monkeys became part of a complex cultural story of a domestic science" (1989: 244). According to Haraway (1989: 263), Indian primatology has a different orientation again, representing "a post-colonial nation with a sophisticated national primatology and the political and technical ability to restrain western biomedical and military hegemony over its own inhabitants, human and animal".

Given this growing recognition that there is no one way of looking at the world, no 'one true story', but a multiplicity of stories then we should be looking at a multiplicity of strategies for policies, pedagogies and research in environmental education. These strategies should be ones that are not universal and part of the dominant discourse, but ones which are from the lives of the colonized and marginalized.

---

6 Interestingly, the much debated (Fensham 1976) 'A. Environmental Situation' section of The Belgrade Charter did refer to "The recent United Nations Declaration for a New International Economic Order". The change is therefore remarkable and opens up questions of the politics being played at the Tbilisi conference.

Linda Hutcheon (1990: 176) asks "How do we construct a discourse, which displaces the effects of the colonizing gaze while we are still under its influence?". The task is to dismantle colonialism's system, expose how it has silenced and oppressed its subjects and find ways for their voices to be heard. As Edward Said (1985: 91) argues, the problems are concerned with

> how the production of knowledge best serves communal, as opposed to factional, ends, how knowledge that is nondominative and noncoercive can be produced in a setting that is deeply inscribed with the politics, the considerations, the positions, and the strategies of power.

Some answers to these problems are being suggested. For example, Homi Bhabha (1985, 1986, 1994) has asserted that the colonised is constructed within a disabling master discourse of colonialism which specifies a degenerate native population to justify its conquest and subsequent rule. Gayatri Spivak (1987 1990) argues that colonised races and peoples have intimate experience of the politics of oppression and repression and have been forced to articulate their experiences in the language of their oppressors. In environmental education we need to be working to disrupt the oppression of the native voices and listening to people expressing themselves in their own languages. This we will not find in the IEEP texts, unless we are Western, Eurocentric and English-speaking.

Postcolonialism and feminism have developed as parallel discourses which have much in common, and some writers are starting to draw the two together (for example, Spivak 1987 1990). Feminist and postcolonial discourses both seek to re-instate the marginalised in the face of the dominant (the former coloniser), and both are oriented to the future, "positing societies in which social and political hegemonic shifts have occurred" (Ashcroft et al 1989: 177). Postcolonialism provides a possible approach for it "challenges how imperial centers of power construct themselves through the discourse of master narratives and totalizing systems; they contest monolithic authority wielded through representations of 'brute institutional relations' and the claims of universality" (Giroux 1992: 20).

Feminist critique provides another, yet similar, approach from the perspective that "Women in many societies have been relegated to the position of 'Other', marginalized and, in a metaphorical sense, 'colonized', forced to pursue guerrilla warfare against imperial domination from positions deeply imbedded in, yet fundamentally alienated from, that *imperium*" (Ashcroft et al 1989: 174). The experiences of India's Chipko movement (see Merchant 1992, Shiva 1989), and and the Kenyan Greenbelt Movement (see Merchant 1992), are examples of women pursuing ecological guerrilla warfare as attempts to maintain or achieve sustainability. Merchant (1992: 200, 206) argues that "many of the problems facing Third World women today are the historical result of colonial relations between the First and Third Worlds", but that Third World women "are making the impacts of colonialism and industrial capitalism on the environment and on their own lives visible".

In this there is both a challenge and a dilemma (or two or three) for environmental educators and researchers. The politics of difference goes beyond being "simply oppositional in contesting the mainstream (or *males*tream) for inclusion", and beyond being "transgressive in the avant-gardist sense of shocking conventional bourgeois audiences" and aligns itself "with demoralized, depoliticized and disorganized people in order to empower and enable social action and, if possible, to enlist collective insurgency for the expansion of freedom, democracy and individuality" (West 1990: 19). We need to be aware that there are ways other than those to which we are accustomed of looking at the environment and its problems. And we need to be aware those those ways and the voices that accompany them have to date been silenced in the IEEP texts.

Some too, are starting to relate the discourses of colonisation to those of environmentalism, particularly ecofeminism. Since the seventeenth century European colonisation in the Americas, Africa, Asia, Australia and the Pacific has resulted in a colonial ecological revolution that has disrupted native ecologies and native peoples' modes of subsistence. For example, Carolyn Merchant (1992: 201) notes that "Third World women have born the brunt of environmental crises resulting from colonial marginalization and ecologically sustainable development". Indian physicist and environmentalist Vandana Shiva (1989) links the violation of nature with the violation and marginalisation of women in the

Third World. There have also been some attempts to relate these discourses of ecofeminism to environmental education, see for example the work of Giovanna Di Chiro (1987) and Valerie Brown and Meg Switzer (1991), but such efforts have so far been rare.

The role of women in achieving sustainable development was recognised in the Rio Declaration (1992): "Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development." However, women's access to education can be limited. For example, the literacy rate for women in Pakistan as a whole is estimated at only 23 per cent, and in villages as nil (del Nevo 1993), and gender as well as caste affects women's access to education. Although silenced as well as colonized and marginalized through this process, women do have a vital role in environmental education: they are often responsible for the health and nutrition of their families as well as their other duties, and their involvement is essential if we are to overcome the barriers to succesful implementation of environmental education. As a way of overcoming the barriers perhaps, as Sandra Harding (1991: 268, emphasis as in original) suggests, we should be moving from

> *including* others' lives and thoughts in research and scholarly projects to *starting from* their lives to ask research questions, develop theoretical concepts, design research, collect data, and interpret findings... that would provide less partial and distorted accounts of nature and social relations.

Ashis Nandy (1986: xv) argues similarly that we must choose the slave's standpoint, not only because the slave is oppressed but also because the slave represents a higher-order cognition which perforce includes the master as human, whereas the master's cognition has to exclude the slave except as a "thing". Vandana Shiva (1989: 53) also argues that liberation should begin from the colonised and end with the coloniser. In environmental education we are concerned with both the liberation of nature and of people, thus we should be considering starting from others' lives, both human and non-human, in the spirit of deep ecology (see, for example, Devall and Sessions 1985)7.

The dominant accounts of the environment and its problems, and the modern Western development views of science that dominate the IEEP publications do not encourage starting from others' lives. Rather, their authors know the one true story and they are concerned with implementing their message. Yet we know their message is flawed. It is grounded in the same view of science that has precipitated the environmental crisis - so should we not look elsewhere, start from others' lives, to look for solutions?

Conclusion

The environmental education publications of UNESCO and the IEEP are an attempt by a privileged few to teach other nations how to live. We, as environmental educators, and particularly as researchers, should instead be listening to the silenced voices speaking in their own languages, and encouraging our students to do the same. The colonialism and marginalization implicit in the dominant discourses, such as the IEEP documents, are barriers to the successful implementation of environmental education through teacher education. The documents are based on worldviews, and written in languages, that are quite alien to non-Western, non-English speaking and non-male people. And this "Other" category is very varied, with the differences within being as great as or greater than the differences from the West (Inayatullah 1993). Elizabeth Minnich's (1989: 286) comments about the absurdity of expecting a Black woman to learn the same things as a white man studying alongside her are appropriate in this context:

> We have seen Black people admitted to institutions that continue to offer the same curriculum they offered when Black people were excluded...an overwhelmingly if not exclusively white curriculum... (But) ...The full absurdity of assuming that a Black woman, studying a curriculum that is by and about white men is having the same

---

7 It is important to note that some ecofeminists (see, for example, Warren 1990) dispute the perspectives of deep ecologists, so this is not a simple solution, but rather something to be discussed in a future paper.

> experience, is learning the same things as a white man studying alongside of her is still not fully evident to some educators.

The language of the publications is also important. A.S. Byatt, in her award-winning novel *Possession*, summarises this position well when she writes "it's the *language* that matters, isn't it, it's what went on in her mind" (1991, p. 55). Although, in the case of environmental education statements, it is very much what went on in *his* mind. As has been discussed in this paper, the domination of the discourses of environmental education by the English language and by Amero-Eurocentric authors, and the potential this has for privileging only certain male, English speaking voices in those discourses, raises many concerns about environmental education *per se*. If we are to critically confront the environmental crisis then we must listen to more voices than these. What is clear is that we must contest statements such as "environmental education does have a substantive structure" (Hungerford, Peyton and Wilke 1983: 2) when it is clear that such statements are made by white, Western, Amero-Eurocentric, English-speaking males. These males have also been associated with the IEEP texts (see, for example Wilke, Peyton and Hungerford 1987, Hungerford et al 1988, Hungerford, Volk[8] and Ramsey 1989, Marcinkowski, Volk[8] and Hungerford 1990) and invoked their structure for environmental education in these texts.

It seems to be time to move beyond the silencing effect of colonialism to a stage where sufficient space can be created so that "the colonised can be written back into history" (Parry 1987: 39), and written into the discourses of environmental education. Like the African SONED (M'Mwereria 1993), we need to be rejecting co-option, exclusion and marginalization of non-Western, non-English speaking and non-male peoples and affirming alternatives. Rather than studying other peoples as objects (as is often done in school projects), or including their lives and thoughts in projects (as is starting to happen in, for example, Huckle 1988, Williamson-Fien 1993), we need to start from others' lives to develop less partial and less distorted accounts of nature and social relations.

Environmental education is not the only area affected in this way; we all should be looking at texts for who is saying what and for what purpose, looking for the gaps and silences in those texts, and asking questions about whether the discourses which are of interest to us start from others' lives or perpetuate the dominant discourses. A feminist poststructuralist perspective provides some promise for change.

References

Aronowitz, Stanley (1988) *Science as Power: Discourse and ideology in modern society*. Minneapolis: University of Minnesota Press.

Ashcroft, Bill; Griffiths, Gareth; and Tiffin, Helen (1989) *The Empire Writes Back: theory and practice in post-colonial literatures*. New York and London: Routledge.

Bhabha, Homi K. (1985) Signs taken for wonders: questions of ambivalence and authority under a tree outside Delhi. May 1817. *Critical Inquiry* 12(1).

Bhabha, Homi K. (1986) The other question: Difference, discrimination and the discourse of colonialism. In Francis Barker et al (eds) *Literature, politics and theory*. New York: Methuen.

Bhabha, Homi K. (1994) *The Location of Culture*. London/New York: Routledge.

Brown, Valerie A. and Broom, Dorothy H. (1992) *Engendering Sustainable Development*. Occasional Paper No.1. Canberra: National Women's Consultative Council.

Brown, Valerie A. and Switzer, Margaret A. (1991a) *Engendering the Debate: Women and Ecologically Sustainable Development*. Canberra: Office of the Status of Women, Department of the Prime Minister and Cabinet.

Brown, Valerie A. and Switzer, Margaret A. (1991b) Where have all the women gone? The role of gender in sustainable development. Canberra: Centre for Resource and Environmental Studies, Australian National University. Unpublished paper.

Brown, Valerie A. and Switzer, Margaret A. (1991c) Next: Engendering sustainable development strategies. Response to Draft Reports of ESD Working Groups. Canberra: Office of the Status of Women.

Byatt, A.S. (1991) *Possession*. London: Vintage.

---

8 Trudi Volk is a rare female voice in this group, but she speaks English, the language of the coloniser, in a white Western developed world voice. It could also be argued that she has been coopted by the patriarchal discourses.

BEST COPY AVAILABLE

Cherryholmes, Cleo H. (1988) *Power and Criticism: Poststructural Investigations in Education*. New York/London: Teachers College Press.
Chiappo, Leopoldo (1978) Environmental education and the Third World. *Prospects* VIII(4).
Choudhary, Sana A. (1993) Letter to the editor. *Time Australia* 8 February.
Davies, Bronwyn (1994) *Poststructuralist Theory and Classroom Practice*. Geelong: Deakin University.
del Nevo, Maria (1993) Learning to heal. *New Internationalist* 243: 3.
Department of Prime Minister and Cabinet. Office of the Status of Women (DPMC/OSW) (1992) *Women and the Environment*. Canberra: Australian Government Publishing Service.
Devall, Bill and Sessions, George (1985) *Deep Ecology: Living as if Nature Mattered*. Layton, Utah: Gibbs M. Smith.
Di Chiro, Giovanna (1987) Applying a feminist critique to environmental education. *Australian Journal of Environmental Education* 3(1): 10-17.
Di Chiro, Giovanna (1987) Environmental education and the question of gender: A feminist critique. In Ian Robottom (ed) *Environmental Education: Practice and Possibility*. Geelong, Australia: Deakin University Press.
Di Chiro, Giovanna (1993) Environmental education in the war years: A case study. In Rick Mrazek (ed) *Alternative Paradigms in environmental education research*. Troy, OH: North American Association for Environmental Education, pp.227-237.
Fawcett, Leesa; Marino, Dian; and Raglon, Rebecca (1991) Playfully critical: Reframing environmental education. In John H Baldwin (ed) *Confronting Environmental Challenges in a Changing World*. Selected papers from the Twentieth Annual Conference of the North American Association for Environmental Education (NAAEE). Troy, OH: NAAEE, pp.250-254.
Fensham, Peter J. (1976) *A Report on the Belgrade Workshop on Environmental Education*. Canberra, Australia: Curriculum Development Centre.
Giroux, Henry A. (1992) *Border Crossings: cultural workers and the politics of education*. New York and London: Routledge.
Greenall Gough, Annette (1993) *Founders in Environmental Education*. Geelong, Victoria: Deakin University Press.
Hallam, Nickie and Pepper, David (1991) Feminism, anarchy and ecology: Some connections. *Contemporary Issues in Geography and Education* 3(2): 151-167.
Haraway, Donna J. (1989) *Primate Visions: Gender, race and nature in the world of modern science*. New York: Routledge.
Harding, Sandra (1986) *The Science Question in Feminism*. Ithaca: Cornell University Press.
Harding, Sandra (1991) Whose Science? Whose Knowledge? Thinking from Women's Lives. Ithaca NY: Cornell University Press.
Hart, Paul (1990) Environmental education in Canada: Contemporary issues and future possibilities. *Australian Journal of Environmental Education* 6: 45-65.
Huckle, John (1988) *What We Consume Unit 5: Brazil*. (WWF-UK Project) Richmond, Surrey: Richmond Publishing.
Hungerford, Harold R.; Peyton, R. Ben ; and Wilke, Richard J. (1983) Yes, EE does have definition and structure. *Journal of Environmental Education* 14(3).
Hungerford, Harold R.; Volk, Trudi L.; and Ramsey, John M. (1989) *A Prototype Environmental Education Curriculum for the Middle School*. UNESCO-UNEP International Environmental Education Programme Environmental Education Series No. 29. Paris: UNESCO.
Hungerford, Harold R.; Volk, Trudi L.; Dixon, Billy G., Marcinkowski, Thomas J. and Sia, Archibald P.C. (1988) *An Environmental Education Approach to the Training of Elementary Teachers: A Teacher Education Programme*. UNESCO-UNEP International Environmental Education Programme Environmental Education Series No. 27. Paris: UNESCO.
Hutcheon, Linda (1990) Circling the downspout of Empire. In Ian Adam and Helen Triffin (eds) *Past the Last Post: Theorizing Post-Colonialism and Post-Modernism*. Calgary, Canada: University of Calgary Press.
Inayatullah, Sohail (1993) A response to Zia Sardar's 'Colonizing the future'. *Futures* 25(2): 190-195.
Kremer, Kristine Benne; Mullins, Gary W.; and Roth, Robert E. (1990-91) Women in science and environmental education: Need for an agenda. *Journal of Environmental Education* 22(2): 4-6.
M'Mwereria, Godfrey K (1993) Southern Networks for Environment and Development (SONED) - Africa Region. *The Independent Sectors' Network* 26: 2.
Marcinkowski, Thomas J.; Volk, Trudi L.; and Hungerford, Harold R. (1990) *An Environmental Education Approach to the Training of Middle Level Teachers: A Prototype Programme*. UNESCO-UNEP International Environmental Education Programme Environmental Education Series No. 30. Paris: UNESCO.
Merchant, Carolyn (1980) *The Death of Nature: Women, Ecology and the Scientific Revolution*. New York: Harper and Row.
Merchant, Carolyn (1992) *Radical Ecology: the search for a livable world*. New York and London: Routledge.

Minnich, Elizabeth Kamarck (1989) From the circle of the elite to the world of the whole: Education, equality and excellence. In Carol S. Pearson, Donna L. Shavlik and Judith G. Touchton (eds) *Educating the majority: Women challenge tradition in higher education*. New York: Macmillan.

Nandy, Ashis (1986) *The Intimate Enemy*. Delhi: Oxford University Press.

National Women's Consultative Council (NWCC) (1992) *A Question of Balance: Australian Women's Priorities for Environmental Action*. Canberra: National Women's Consultative Council.

Ngugi Wa Thiong'O (1986) *Decolonizing the Mind: The Politics of Language in African Literature*. London and Nairobi: Heinemann.

Parry, Benita (1987) Problems in current theories of colonial discourse. *Oxford Literary Review* 9(1&2).

Peck, Diane (1991) Gender equity and environmental education. Unpublished draft paper.

Peck, Diane (1992) Environmental education - time to branch out. *The GEN* January/February: 1and 4.

Robottom, Ian and Hart, Paul (1993) *Research in Environmental Education: Engaging the Debate*. Geelong, Victoria: Deakin University Press.

Said, Edward W. (1985) Orientalism reconsidered. *Cultural Critique* 1.

Salleh, Ariel Kay (1989) Environmental consciousness and action: An Australian perspective. *Journal of Environmental Education* 20(2): 26-31.

Sangari, Kum Kum (1987) The politics of the possible. *Cultural Critique* 7.

Sardar, Ziauddin (1993) Colonizing the future: the 'other' dimension of futures studies. *Futures* 25(2): 179-187.

Shiva, Vandana (1989) *Staying Alive: Women, Ecology and Development*. London: Zed Books.

Slemon, Stephen and Tiffin, Helen (1989) Introduction. *Kunapipi* XI(1).

Spender, Dale (1990) *Man Made Language*. Revised edition. London: Pandora.

Spivak, Gayatri Chakravorty (1987) *In Other Worlds: Essays in Cultural Politics*. London: Methuen.

Spivak, Gayatri Chakravorty (1990) *The Post-colonial Critic: interviews, strategies and dialogues*. New York and London: Routledge. (edited by Sarah Harasym)

Tbilisi Declaration (1977) as reprinted in *Connect* III(1): 1-9.

The Rio Declaration on Environment and Development (1992) Reprinted in *Earth Ethics* 4(1): 9-10.

UNESCO (1978) *Intergovernmental conference on Environmental Education: Tbilisi (USSR), 14-26 October 1977*. Final Report.Paris: UNESCO.

UNESCO Regional Office for Education in Asia and the Pacific (1981) *Environmental Education in Asia and the Pacific*. Bulletin Number 22. Bangkok: UNESCO.

United Nations Conference on Environment and Development (UNCED) (1992) *Agenda 21*. Rio de Janeiro, Brazil: UNCED. Final, advanced version as adopted by the Plenary on 14 June 1992.

Vidart, Daniel (1978) Environmental education - theory and practice. *Prospects* VIII(4).

Warren, Karen J. (1990) The power and the promise of ecological feminism. *Environmental Ethics* : 125-146.

Weedon, Chris (1987) *Feminist Practice and Poststructuraliat Theory*. Oxford: Blackwell.

West, Cornel (1990) The new cultural politics of difference. In Russell Ferguson, Martha Gever, Trinh T. Minh-ha and Cornel West (eds) *Out There: Marginalization and Contemporary Cultures*. New York: The New Museum of Contemporary Art and Cambridge, Mass: The MIT Press.

Wilke, Richard J.; Peyton, R. Ben; and Hungerford, Harold R. (1987) *Strategies for the Training of Teachers in Environmental Education*. UNESCO-UNEP International Environmental Education Programme Environmental Education Series No. 25. Paris: UNESCO.

Williamson-Fien, Jane (1993) *Women's Voices*. Windsor, Queensland: Global Learning Centre (Qld) Incorporated.